

In the Claims

Please enter the following amendments to claims 12, 17, and 24, discussed below.

1. (Once amended) An isolated DNA molecule encoding a mammalian islet cell neogenesis associated protein (INGAP) [protein], wherein the INGAP [protein] has the amino acid sequence shown in SEQ ID NO: 2.
2. (Once amended) The DNA molecule of claim 1 [wherein the INGAP protein] which has the nucleotide sequence shown in SEQ ID NO: 1.
3. A vector comprising the DNA of claim 1.
4. The vector of claim 3 further comprising expression control sequences, whereby said DNA is expressed in a host cell.
5. (Once amended) The vector of claim 4 which comprises [a] an Epstein Barr Nuclear Antigen-Histidine (EBNA His) plasmid.
6. A host cell transformed with the DNA of claim 1.
7. A host cell transformed with the vector of claim 3.
8. (Once amended) The host cell of claim 6 which is a cos7, African [cos7,African]Green Monkey kidney cell.
9. A nucleotide probe comprising at least 30 contiguous nucleotides of a sequence encoding a mammalian islet cell neogenesis associated protein (INGAP), wherein said protein has the sequence shown in SEQ ID NO: 2.
10. (Twice amended) The nucleotide probe of claim 9 wherein the nucleotide sequence encoding a mammalian INGAP [gene] has the sequence shown in SEQ ID NO: 1.
11. The nucleotide probe of claim 9 wherein said probe is labeled with a detectable moiety.

12. (Twice amended) [A] An isolated DNA molecule comprising at least 30 contiguous nucleotides of a sequence encoding a mammalian islet cell neogenesis associated protein (INGAP), wherein said protein has the sequence shown in SEQ ID NO: 2, wherein said DNA molecule encodes a polypeptide which stimulates islet cell neogenesis.

13. (Once amended) The DNA molecule of claim 12 wherein the sequence encoding the mammalian INGAP [gene] has the sequence shown in SEQ ID NO: 1.

14. The DNA molecule of claim 12 wherein said molecule is labeled with a detectable moiety.

15. (Once amended) A method of producing a mammalian INGAP [protein], comprising the steps of:

providing a host cell according to claim 6;

culturing the host cell in a nutrient medium so that the INGAP [protein] is expressed; and

harvesting the INGAP [protein] from the host cells or the nutrient medium.

16. (Once amended) A method of producing a mammalian INGAP [protein], comprising the steps of:

providing a host cell comprising the DNA molecule of claim 1;

culturing the host cell in a nutrient medium so that the mammalian INGAP

[protein] is expressed; and

harvesting the mammalian INGAP [protein] from the host cells or the nutrient medium.

17. (Twice amended) An antisense construct of a mammalian islet cell neogenesis associated protein (INGAP) gene comprising:

a promoter, a terminator, and a nucleotide sequence [consisting of a mammalian INGAP gene, wherein the gene] which encodes all or a portion of a protein as shown in SEQ ID NO: 2, said nucleotide sequence being between said promoter and said terminator, said nucleotide sequence being inverted with respect to said promoter, whereby upon expression from said promoter an mRNA complementary to native mammalian INGAP mRNA is produced, wherein said mRNA complementary to native mammalian INGAP mRNA prevents translation of the native mammalian INGAP mRNA.

18. (Once amended) The DNA molecule of claim 1 wherein the INGAP [protein] is from human.
19. The DNA molecule of claim 1 which comprises nucleotides 4 to 268 and 389 to 629 of SEQ ID NO:1.
20. A vector comprising the DNA of claim 2.
21. A host cell transformed with the vector of claim 20.
22. The DNA molecule of claim 1 which is a cDNA molecule.
23. The DNA molecule of claim 12 which is a cDNA molecule.
24. (Once amended) The DNA molecule of claim 12 which encodes a portion of INGAP, wherein said DNA molecule encodes a polypeptide which stimulates islet cell neogenesis.